



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1459  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/666,600	09/18/2003	Robert J. Nealon	LUC-421/Nealon 2	8545
32205 7590 01/07/2009 PATTI, HEWITT & AREZINA LLC ONE NORTH LASALLE STREET 44TH FLOOR CHICAGO, IL 60602				
EXAMINER				
ROBERTS, BRIAN S				
ART UNIT		PAPER NUMBER		
2419				
MAIL DATE		DELIVERY MODE		
01/07/2009		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### **DETAILED ACTION**

- Claims 1-15 remain pending.

#### ***Claim Objections***

Claims 1 and 4 are objected to because of the following informalities:

- Claim 1 line 3, "CID (channel identifier)" should read --channel identifier (CID)--
- Claim 1 line 7, claim 4 line 3 "PVCs" should read --private virtual circuits (PVCs)--
- Claim 4 line 5, "DSP (digital signal processor)" should read --digital signal processor (DSP)--
- Claim 4 line 8 "CPS" should read --common part sublayer (CPS)--

Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- In reference to claims 1, 4, 7, 10, 12-13

The phrase "substantially even distribution" in claim 1, 4, 7, 10, and 12-13 renders the claims indefinite. The term "substantially" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Paaanen et al. (US 7349404) in view of Chun et al. (US 7269181)

- In reference to claim 1

In Figures 1, Paaanen et al. teaches a method for using ATM AAL2 switching within a wireless access gateway that includes providing AAL2 CID (channel identifier) switching in a wireless access gateway, the wireless access gateway having a plurality of transcoders (3), the plurality of transcoders (3) having a subset of transcoders that are available transcoders; allocating individual CIDs to transcoder channels on an as needed basis without a fixed relationship between external PVCs and transcoder channels; switching a call to any one respective transcoder (3) of available transcoders

(3); and transcoding the call from a first format to a second format in the respective transcoder. (column 4 lines 5-36; column 5 lines 27-54)

Paajanen et al. does not teach establishing a substantially even distribution of calls among the transcoders for an uneven call load on the external PVCs.

In Figure 2, Chun et al. teaches assigning resources from a resource pool on an as needed basis so that there is a substantially even distribution of calls among the resources for an uneven call load. (column 3 line 27-62)

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the system and method of Paajanen et al. to include establishing a substantially even distribution of calls among the transcoders for an uneven call load on the external PVCs as suggested by Chun et al. because having flexible access to a resource pool of transcoders prevents a particular transcoder from becoming overloaded as may happen if the resources are assigned on a permanent basis.

- In reference to claim 2

The combination of Paajanen et al. and Chun et al. teaches a system and method that covers substantially all limitations of the parent claim. In Figures 1, Paajanen et al. further teaches the switching of the call to any one respective transcoder (3) of available transcoders (3) is a function of at least one predetermined parameter, and wherein the at least one predetermined parameter comprises at least one of a state of each respective transcoder (3), and a current load on the plurality of transcoders. (column 5 lines 27-54)

- In reference to claim 3

The combination of Paajanen et al. and Chun et al. teaches a system and method that covers substantially all limitations of the parent claim. In Figures 1, Paajanen et al. further teaches the switching of the call to any one respective transcoder (3) of available transcoders (3) is on an as needed basis. (column 5 lines 27-54)

- In reference to claim 4

In Figure 1, Paajanen et al. teaches a method for using ATM AAL2 switching within a wireless access gateway that includes: terminating a plurality of external AAL2 PVCs at an intermediate node; setting up a set of internal AAL2 PVCs between the intermediate node and a set of transcoders (3) that form a plurality of DSP (digital signal processor) channels; allocating a respective DSP channel, of the plurality of DSP channels for a call as a function of at least one predetermined parameter; and instructing the intermediate node to switch individual AAL TYPE 2 CPS-packets of the new call from an external AAL2 PVC of the plurality of external AAL2 PVCs to an internal PVC of the set of internal AAL2 PVCs. (column 4 lines 5-36; column 5 lines 27-54)

Paajanen et al. does not teach establishing a substantially even distribution of calls among the transcoders for an uneven call load on the external PVCs.

In Figure 2, Chun et al. teaches assigning resources from a resource pool on an as needed basis so that there is a substantially even distribution of calls among the resources for an uneven call load. (column 3 line 27-62)

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the system and method of Paajanen et al. to include establishing a substantially even distribution of calls among the transcoders for an uneven call load on the external PVCs as suggested by Chun et al. because having flexible access to a resource pool of transcoders prevents a particular transcoder from becoming overloaded as my happen if the resources are assigned on a permanent basis.

- In reference to claim 5

The combination of Paajanen et al. and Chun et al. teaches a system and method that covers substantially all limitations of the parent claim. In Figures 1, Paajanen et al. further teaches wherein at least one predetermined parameter comprises at least one of a state of the transcoders, a current load on the transcoders, and a state of the internal AAL2 PVCs. (column 5 lines 27-54)

- In reference to claim 6

The combination of Paajanen et al. and Chun et al. teaches a system and method that covers substantially all limitations of the parent claim. In Figures 1, Paajanen et al. further teaches wherein the individual AAL TYPE 2 CPS- packets of the new call from the external AAL2 PVC of the plurality of external AAL2 PVCs to the

internal PVC of the set of internal AAL2 PVCs at the CPS layer of AAL2 on an as needed basis. (column 5 lines 27-54)

- In reference to claim 7

In Figures 1, Paajanen et al. teaches a method for using ATM AAL2 switching within a wireless access gateway that includes providing AAL2 C1D switching in a wireless access gateway, the wireless access gateway having a plurality of DSPs (3) acting as transcoders for digital representation of speech; allocating individual CIDs to transcoder channels on an as need basis without a fixed relationship between external PVCs and transcoder channels switching individual packets of a call to any one respective DSP (3) of available DSPs (3), the available DSPs (3) being a subset of the plurality of DSPs (3) and transcoding the packets of the call in the respective DSP (3) from a first encoding to a second encoding. (column 4 lines 5-36; column 5 lines 27-54)

Paajanen et al. does not teach establishing a substantially even distribution of calls among the DSPs for an uneven call load on the external PVCs.

In Figure 2, Chun et al. teaches assigning resources from a resource pool on an as needed basis so that there is a substantially even distribution of calls among the resources irrespective of any uneven call load. (column 3 line 27-62)

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the system and method of Paajanen et al. to include establishing a substantially even distribution of calls among the DSPs for an uneven call load on the external PVCs as suggested by Chun et al. because having flexible access to a

resource pool of DSPs prevents a particular DSP from becoming overloaded as my happen if the resources are assigned on a permanent basis.

- In reference to claim 8

The combination of Paajanen et al. and Chun et al. teaches a system and method that covers substantially all limitations of the parent claim. In Figures 1, Paajanen et al. further teaches wherein the switching of individual packets to any one respective DSP (3) of available DSPs (3) is a function of at least one predetermined parameter, and wherein the at least one predetermined parameter comprises at least one era state of the each of the transcoders, and a current load on the plurality of transcoders. (column 5 lines 27-54)

- In reference to claim 9

The combination of Paajanen et al. and Chun et al. teaches a system and method that covers substantially all limitations of the parent claim. In Figures 1, Paajanen et al. further teaches wherein the switching of individual calls to any one respective DSP (3) of available DSPs (3) is on an as needed basis. (column 5 lines 27-54)

- In reference to claim 10

In Figures 1, Paajanen et al. teaches a method for using ATM AAL2 switching within a wireless access gateway that includes allocating individual CIDs to transcoder



channels on an as needed basis without a fixed relationship between external PVCs and transcoder channels; transcoding the call in the respective transcoder channel from a first format to a second format. (column 4 lines 5-36; column 5 lines 27-54)

Paajanen et al. does not teach establishing a substantially even distribution of calls among the transcoders for an uneven call load on the external PVCs.

In Figure 2, Chun et al. teaches assigning resources from a resource pool on an as needed basis so that there is a substantially even distribution of calls among the resources for an uneven call load. (column 3 line 27-62)

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the system and method of Paajanen et al. to include establishing a substantially even distribution of calls among the transcoders for an uneven call load on the external PVCs as suggested by Chun et al. because having flexible access to a resource pool of transcoders prevents a particular transcoder from becoming overloaded as my happen if the resources are assigned on a permanent basis.

- In reference to claim 11

The combination of Paajanen et al. and Chun et al. teaches a system and method that covers substantially all limitations of the parent claim. In Figures 1, Paajanen et al. further teaches wherein the allocating of individual CIDs to transcoder channels is a function of at least one predetermined parameter, and wherein the at least one predetermined parameter comprises at least one of a state of the each of the

transcoders (3), and a current load on the all of the transcoders (3). (column 5 lines 27-54)

- In reference to claim 12

In Figures 1, Paajanen et al. teaches a system for using ATM AAL2 switching within a wireless access gateway that includes a plurality of external AAL2 PVCs; a plurality of internal AAL2 PVCs; a plurality of transcoders (3); at least one intermediate node operatively connected to the external AAL2 PVCs and to the internal AAL2 PVCs; a packet switch control operatively connected to the at least one intermediate node, the plurality of internal AAL2 PVCs and the transcoders; and wherein based upon an algorithm that takes into account at least a current state of each of the transcoders and a current load of all of the transcoders, the switch controller instructs the at least one intermediate node to switch individual AAL2 CPS-Packets from the external AAL2 PVCs to the internal AAL2 PVCs. (column 4 lines 5-36; column 5 lines 27-54)

Paajanen et al. does not teach establishing a substantially even distribution of calls among the transcoders for an uneven call load on the external PVCs.

In Figure 2, Chun et al. teaches assigning resources from a resource pool on an as needed basis so that there is a substantially even distribution of calls among the resources for an uneven call load. (column 3 line 27-62)

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the system and method of Paajanen et al. to include establishing a substantially even distribution of calls among the transcoders for an uneven call load

on the external PVCs as suggested by Chun et al. because having flexible access to a resource pool of transcoders prevents a particular transcoder from becoming overloaded as my happen if the resources are assigned on a permanent basis.

- In reference to claim 13

In Figures 1, Paaanen et al. teaches a method for using ATM AAL2 switching within a wireless access gateway that includes providing AAL2 CID switching in a wireless access gateway, the wireless access gateway having a plurality of DSPs (3) acting as transcoders for digital representation of speech; allocating individual CIDs to transcoder channels on an as needed basis without a fixed relationship between external PVCs and transcoder channels; switching individual digital representations of speech of a call to any one respective DSP (3) of available DSPs (3), the available DSPs (3) being a subset of the plurality of DSPs (3) and transcoding the digital representations of speech of the call in the respective DSP (3) from a first encoding to a second encoding. (column 4 lines 5-36; column 5 lines 27-54)

Paaanen et al. does not teach establishing a substantially even distribution of calls among the transcoders for an uneven call load on the external PVCs.

In Figure 2, Chun et al. teaches assigning resources from a resource pool on an as needed basis so that there is a substantially even distribution of calls among the resources for an uneven call load. (column 3 line 27-62)

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the system and method of Paaanen et al. to include establishing

a substantially even distribution of calls among the transcoders for an uneven call load on the external PVCs as suggested by Chun et al. because having flexible access to a resource pool of transcoders prevents a particular transcoder from becoming overloaded as may happen if the resources are assigned on a permanent basis.

- In reference to claim 14

The combination of Paajanen et al. and Chun et al. teaches a system and method that covers substantially all limitations of the parent claim. In Figures 1, Paajanen et al. further teaches wherein the switching of individual digital representations of speech to any one respective DSP (3) of available DSPs (3) is a function of at least one predetermined parameter, and wherein the at least one predetermined parameter comprises at least one error state of the each of the DSPs (3), and a usage level of the DSPs (3). (column 5 lines 27-54)

- In reference to claim 15

The combination of Paajanen et al. and Chun et al. teaches a system and method that covers substantially all limitations of the parent claim. In Figures 1, Paajanen et al. further teaches wherein the switching of individual digital representations of speech to any one respective DSP (3) of available DSPs (3). (column 5 lines 27-54)

***Response to Arguments***

Applicant's arguments with respect to the rejection(s) of the independent claim(s) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made.

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure are:

- US 6940829
- US 6937577

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRIAN ROBERTS whose telephone number is (571)272-3095. The examiner can normally be reached on M-F 10:00-7:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wing Chan can be reached on (571) 272-7493. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

BSR  
01/03/2009

/Edan Orgad/  
Supervisory Patent Examiner, Art Unit 2419